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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,606	09/01/2006	Young-Sik Choi	B-5850PCT 623145-5	6248
36716	7590	02/11/2011		
LADAS & PARRY 5670 WILSHIRE BOULEVARD, SUITE 2100 LOS ANGELES, CA 90036-5679			EXAMINER	
			ANYIKIRE, CHIKAO DILLIE	
			ART UNIT	PAPER NUMBER
			2482	
			MAIL DATE	DELIVERY MODE
			02/11/2011	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/562,606

**Applicant(s)**

CHOI ET AL.

**Examiner**

CHIKAODILI E. ANYIKIRE

**Art Unit**

2482

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 December 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 September 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-945)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This application is responsive to application number (10/562606) filed on September 01, 2006. Claims 1-18 are pending and have been examined.

### ***Response to Arguments***

2. Applicant's arguments, see Remarks, filed December 06, 2010, with respect to claim 1, 8, 13, and 16 have been fully considered and are persuasive. The Non-Final Office Action of September 14, 2010 has been withdrawn.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Uchihachi et al (US 6,535,639, hereafter Uchihachi) in view of Crinon (US 6,331,859).

As per **claim 1**, Uchihachi discloses an automatic video summarizer comprising:

an input unit for receiving a video source to be summarized and a desired summarization time from a user (Figure 3 element 310; column 5 lines 64 - column 6 lines 4);

an importance measurement module for generating importance degrees according to category characteristics of the video and a purpose of desired summary (Figure 3 element 330; column 6 lines 4-7); and

a video summarization generation module for applying shot information and an importance value to a characteristic support vector algorithm, and generating a video summary (Figure 3 elements 340 and 350; column 6 lines 7 - 10).

However, Uchihachi does not explicitly teach a video summarization generation module for applying shot information to a characteristic support vector algorithm.

In the same field of endeavor, Crinon teaches a video summarization generation module for applying shot information to a characteristic support vector algorithm (Figure 8; column 10 lines 33 - 53).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the invention of Uchihachi in view of Crinon. The advantage would be providing a video summarization with the least distortion.

As per **claim 2**, Uchihachi discloses the automatic video summarizer of claim 1.

However, Uchihachi does not explicitly teach wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm.

In the same field of endeavor, Crinon teaches wherein the characteristic support vector algorithm is the OC-SVM (one-class support vector machine) algorithm (Figure 8; column 10 lines 33—53).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the invention of Uchihachi in view of Crinon. The advantage would be providing a video summarization with the least distortion.

As per **claim 3**, Uchihachi discloses the automatic video summarizer of claim 1.

However, Uchihachi does not explicitly teach wherein the characteristic support vector algorithm is the fuzzy OC-SVM algorithm.

In the same field of endeavor, Crinon teaches wherein the characteristic support vector algorithm is the fuzzy OC-SVM algorithm.

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the invention of Uchihachi in view of Crinon. The advantage would be providing a video summarization with the least distortion.

As per **claim 4**, Uchihachi discloses the automatic video summarizer of claim 1, further comprising a shot detection module for extracting the video sources for respective shots (column 6 lines 1-10).

As per **claim 5**, Uchihachi discloses the automatic video summarizer of claim 1, comprising: an output unit for outputting the generated video summary to a screen; and a storage unit for storing the generated video summary (Figure 3 element 355 and Figure 8 element 720; column 6 lines 9-10 and column 9 lines 38-40).

As per **claim 6**, Uchihachi discloses the automatic video summarizer of claim 5.

However, Uchihachi does not explicitly teach wherein the video summary generation module comprises: a characteristic support vector module for applying the shot information and the importance value to the characteristic support vector algorithm, and generating a video summary; and a scalability processing module for receiving the summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user.

In the same field of endeavor, Crinon teaches wherein the video summary generation module comprises: a characteristic support vector module for applying the shot information and the importance value to the characteristic support vector algorithm, and generating a video summary; and a scalability processing module for receiving the

summarization time information from the user, repeatedly performing a scalability process, and generating a video summary having a time range desired by the user (column 7 lines 7 – 24).

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modify the invention of Uchihachi in view of Crinon. The advantage would be providing a video summarization with the least distortion.

As per **claim 7**, Uchihachi discloses the automatic video summarizer of claim 6, wherein the shot detection module detects a shot from the video source to be summarized, configures a shot list, and transmits the shot list to the video summarization generation module (column 6 lines 1-8).

Regarding **claim 8**, arguments analogous to those presented for claim 1 are applicable for claim 8.

Regarding **claim 9**, arguments analogous to those presented for claim 2 are applicable for claim 9.

Regarding **claim 10**, arguments analogous to those presented for claim 3 are applicable for claim 10.

Regarding **claim 11**, arguments analogous to those presented for claim 5 are applicable for claim 11.

Regarding **claim 12**, arguments analogous to those presented for claim 6 are applicable for claim 12.



Regarding **claim 13**, arguments analogous to those presented for claim 1 are applicable for claim 13.

Regarding **claim 14**, arguments analogous to those presented for claim 2 are applicable for claim 14.

Regarding **claim 15**, arguments analogous to those presented for claim 3 are applicable for claim 15.

Regarding **claim 16**, arguments analogous to those presented for claim 1 are applicable for claim 16.

Regarding **claim 17**, arguments analogous to those presented for claim 2 are applicable for claim 17.

Regarding **claim 18**, arguments analogous to those presented for claim 3 are applicable for claim 18.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIKAODILI E. ANYIKIRE whose telephone number is (571)270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272 - 7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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